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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/251,988	02/17/1999	BRIAN SAMUEL BEAMAN	Y0998-088	3930

7590 11/21/2001

IBM CORPORATION
INTELLECTUAL PROPERTY LAW DEPT
P O BOX 218
YORKTOWN HEIGHTS, NY 10598

EXAMINER

HOLLINGTON, JERMELE M

ART UNIT	PAPER NUMBER
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2858

13

DATE MAILED: 11/21/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/251,988

Applicant(s)

BEAMAN ET AL.

Examiner

Jermele M. Hollington

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-- The MAILING DATE of this communication appears on the cover sheet with th correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 September 2001.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 and 41-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 and 41-47 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☐ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

DETAILED ACTION

Drawings

1. Figures 1-18 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).
2. Applicant is required to submit a proposed drawing correction in reply to this Office action. However, formal correction of the noted defect can be deferred until the examiner allows the application.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-27 and 41-47 are, in so far as understood, rejected under 35 U.S.C. 102(b) as being anticipated by Beaman et al (5371654).

Regarding claims 1 and 41, Beaman et al discloses an interconnection package comprising a substrate (94 or 96) having a surface (102 or 105), a plurality of elongated electrical conductors (84) extending away from the surface (102 or 105) wherein the conductors (42) having a first end (90 or 92) affixed to the surface (102 or 105) and a second end (92 or 90) projecting away from said surface (102 or 105), there being a plurality of said second ends (92 or 90) and a means (80) for positioning and maintaining said plurality of second ends (92 or 90) in substantially fixed positions.

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Regarding claim 2, the first end (90 or 92) is affixed to said surface (102 or 105) at an electrical contact location (104 or 106).

Regarding claim 3, the means (80) for positioning and maintaining is a plurality of sheets of material each having a plurality of opening [not shown] therein through which said second ends (92 or 90) project.

Regarding claim 4, the second end (92 or 90) is a structure selected from the group consisting of a protuberance and a sharp spike [see column 6 lines 34-38].

Regarding claim 5, the plurality of sheets (80) is formed from a material selected from the group consisting of a rigid material and a compliant [see column 6 lines 58-66].

Regarding claim 6, the sheets comprise a plurality of openings [not shown], said elongated electrical conductors (84) are disposed against the sides (86 and 88) or said openings [not shown] of at least two of said sheets.

Regarding claim 7, the sheets (80) are spaced apart from said surface (102 or 105) by a flexible support (82).

Regarding claim 8, the flexible support (82) is selected from the group consisting of a spring and an elastomeric material [see column 6 lines 41-43].

Regarding claim 9, the elongated electrical conductor (84) have a shape selected from the group consisting of linear, piece wise linear, curved and combinations thereof.

Regarding claim 10, the sheet (80) and the flexible support (82) forms a space containing the plurality of elongated electrical conductors (84).

Regarding claim 11, the space is filled with a flexible material.

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Regarding claim 12, the flexible material (78) is an elastomeric material [see column 6 lines 58-62].

Regarding claim 13, the sheets (80) is a sheet of electrically conductive material which has a top surface (not number) and a bottom surface (not number) and said openings (not number) have a side wall (86 and 88), a dielectric material coats said top surface (not number) and said bottom surface (not number) and said side wall (86 and 88).

Regarding claims 14-15, the plurality of elongated electrical conductors (84) are distributed into plurality of groups that are arranged in an array (PGA).

Regarding claim 16, the structure is a probe (see abstract) for an electronic device.

Regarding claims 17-19, the electronic device is selected from the group consisting on an integrated circuit chip on a packaging substrate (94 or 96) containing a wafer (not number).

Regarding claim 20, the structure has means (80) for holding and moving the structure and means for applying electrical signals to the elongated electrical conductors (84).

Regarding claim 21, the protuberance is sphere like.

Regarding claims 22-27 and 47, the means (80) for positioning and maintaining is a plurality of sheets of material each having a plurality of opening (not number) therein through which said second ends (92 or 90) project, the plurality of sheets are formed from a material selected from the group consisting of a rigid material and a compliant [see column 6 lines 58-66], the sheets are a sheet of electrically conductive material which has a top surface (not number) and a bottom surface (not number) and said openings (not number) have a side wall (86 and 88), a dielectric material coats said top surface (not number) and said bottom surface (not

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number) and said side wall (86 and 88), the sheet and the flexible support (82) forms a space containing the plurality of elongated electrical conductors (84).

Regarding claims 42-43, the sheet is formed and material selected from different groups as claimed (see column 6-7 for details).

Regarding claim 44, the dielectric is selected from the group consisting of a ceramic and a glass (see column 1-2 and 6-7).

Regarding claims 45-46, the elongated conductor (84) is coated with a hard coat that is from a group consisting of materials as claimed (see column 6).

Conclusion

The examiner will like to thank the applicant(s) for making the necessary changes to the application to further along the prosecution of this case. Applicants' arguments with respect to claims 1-27 and 41-47 have been considered but are moot in view of the new ground(s) of rejection. Regarding claims rejections under 35 U.S.C. 102(b), the examiner agrees with the applicants and withdraws the rejections using Beaman (5635846) reference. Applicants' state: "Applicants note that Figures 19-31 have been added by the present continuation-in-part." The examiner has not received Figures 19-31 in this application.

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

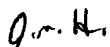
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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jermele M. Hollington whose telephone number is (703) 305-1653. The examiner can normally be reached on M-F (9:00-3:30) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on (703) 308-1436. The fax telephone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.


JMH

November 13, 2001


SAFET METJAHIC
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800